

# [Dry Tree Subsea Well Communications Apparatus and Method Using Variable Tension Large Offset Risers]

## Abstract

Disclosed are compliant variable tension risers (106) to connect deep-water subsea wellheads (102) to a single floating platform (104). The variable tension risers (106) allow several subsea wellheads (102), in water depths from 4,000 to 10,000 feet, at lateral offsets from one-tenth to one-half of the depth, to tie back to a single floating dry tree semi-submersible platform (104). Also disclosed are methods to counter buoyancy and install variable tension risers using a weighted chain ballast line (228, 230).